Carboxylic Acids and their Derivatives

Amic acids Rule C-431

431.1 - When a dicarboxylic acid has a trivial name and when one of its carboxyl groups is replaced by a carboxamide group -C(=O)-NH2, the resulting amic acid is named by replacing the suffix "-ic" of the trivial name of the dicarboxylic acid by the suffix "-amic".

Examples to Rule C-431.1

Succinamic acid

3-Bromophthalamic acid

The following names are also recommended:

Carbamic acid

Oxamic acid

431.2 - Acyl radicals derived from the above amic acids are named by replacing the "-amic acid" ending by "-amoyl".

Examples to Rule C-431.2

Carbamoyl (from carbamic acid)

Oxamoyl (from oxamic acid)

Succinamoyl (from succinamic acid)

431.3 - When the corresponding dicarboxylic acid has a trivial or semitrivial name, N-phenyl derivatives of-amic acids are named by changing the ending "-amic acid" to "-anilic acid".

Examples to Rule C-431.3

Succinanilic acid

2'-Methylsuccinanilic acid

Carbanilic acid or Phenylcarbamic acid

431.4 - Ionoamides of dicarboxylic acids without trivial names and the mono- or di-amides of tricarboxylic acids, etc., are designated as carbamoyl derivatives of the acid named on the basis of the remaining carboxyl groups.

(This Rule is partly alternative to Rule C-431.1.)

Examples to Rule C-431.4

6-Carbamoulhexanoic acid

6-(Phenylcarbamoyl)hexanoic acid

2-Carbamoyl-2-methyl-3-phenylglutaric acid

See Recommendations'93 R-5.7.1

Next:

Peroxy Acids Rule C-441 Imidic, Hydrazonic, and Hydroxamic Acids Rule C-451 Salts and Esters Rule C-461, Rule C-462, Rule C-463, Rule C-464 Lactones, Lactides, Lactams, and Lactims Rule C-471, Rule C-472, Rule C-473, Rule C-474, Rule C-475 Acyl Halides Rule C-481 Acid Anhydrides Rule C-491



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Additional Nomenclature Resources:

- Explore IUPAC and CAS Nomenclature tools, such as Free IUPAC name generation and professional ACD/Name Software
- Look up structures of trivial and trade names with <u>ACD/Dictionary</u>
- More resources for educators and students